

IV. REMARKS

Status of the Claims

Claims 1-17 are canceled and new claims 18-46 are added. Claims 18-46 are presented for further consideration.

Summary of the Office Action

Claims 1,7,9,10,15, and 17 stand rejected under 35USC102(e) on the basis of the cited reference "3GTS 25.323 of 3GPP" (3GPP'323). Claims 2 and 11 stand rejected under 35USC103(a) based on the reference 3GPP'323 in view of the cited reference Taketsugu (5,875,292). Claims 8 and 16 stand rejected under 35USC103(a) based on the reference 3GPP'323 in view of the teaching of Widegren (6,374,112). The Examiner is respectfully requested to reconsider his rejection in view of the above amendments and the following remarks.

Applicant has submitted a revised figure 7 to overcome the objections to the drawings. It is believed that the Examiner's objection to figure 5 was in error, as it appeared that it was figure 7 that lacked descriptive legends. This is now corrected and a reference to counters is included therein.

Discussion of the Cited Reference

Applicant submits that in view of the amendments to the claims and the new claims presented, the rejections based on 3GPP'323 are now moot. However, Applicant submits the following discussion with respect to the relevance of the cited references.

The Examiner has cited the reference 3GPP'323 in primary support of the rejections based on anticipation and obviousness. 3GPP TS 25.323 V.3.0.0 (1999-12) "Packet Data Convergence Protocol (PDCP) Specification" discloses acknowledged and unacknowledged data packet transmission, wherein the transmitting entity (either the UE or RNC) attaches a data packet number, defined by means of a counter, to the data packet to be transmitted. This procedure is defined in the present application as the background of the invention. According to the reference 3GPP'323, contrary to the Examiner's interpretation, the receiving entity does not define, a data packet number for the received data packets by means of a counter.

According to the teaching of 3GPP'323, this would be useless since the received data packets already include a data packet number attached by the transmitting entity. The PDU numbering unit is incorporated both in UE and RNC, since both of them can operate as a transmitting entity.

The 3GPP'323 reference is silent about some problematic situations wherein, on one hand, due to some disturbance, retransmission of missed data packets with an acceptable delay is not possible and, on the other hand, from the system operational view, it would be preferable to continue the transmission of data packets, as soon as possible, regardless of the missing data packets. A situation like this is disclosed in the present application, in chap. 0042. The cited document does not disclose either this problem or a solution to it.

The claims have been amended such that the problem of how to continue data packet transmission in such situations, where all data packets cannot be transmitted to the receiver regardless of several attempts of retransmission and, at the same time, the

transmission of the following data packets should be continued in a synchronous way, can be solved.

The new independent claims 18,26,33, and 40 describe an arrangement wherein the convergence protocol packet number defined by the transmitter's counter is arranged to be added to the convergence protocol packet to be sent in response to performance of a predetermined process of the telecommunication system, and the value of the receivers counter is arranged to be updated to correspond to said convergence protocol packet number.

In other words, regardless of the fact that all missing or erroneous data packets cannot be transmitted to the receiver, the receiver's counter can be synchronised to the transmitter's counter in such a way that the convergence protocol packet number is attached to the data packet to be sent only when a certain process, like discard of data packet or handover takes place.

Then the receiver can synchronise its counter with the transmitter's counter and the data packet transmission can be continued with new data packets. The convergence protocol packet numbers are only attached to very few data packets, due to which the arrangement causes no extra load for the system, but at the same time a fast resynchronisation of the system can preferably guaranteed.

The Issue of Anticipation

It is well settled that a claim is anticipated, "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (See CHISOLM, Federal Circuit Guide, Pg. 1221).

The elements of the claim and their function and purpose within the claim must be reviewed in a manner similar to an infringement analysis. If the device described in the cited reference would not infringe if it was later, it will not anticipate if the reference is earlier.

Applying this standard to a system as called for in the reference 3GPP'323, it is observed that significant elements of the claims are missing.

For example, claim 18 states:

"adding the convergence protocol packet number defined by the transmitter's counter to the convergence protocol packet to be sent in response to performance of a predetermined process of the telecommunications system; and

updating the value of the receiver's counter to correspond to said convergence protocol packet number."

Equivalent language appears in the other independent claims 26, 33, and 40. Since this step or apparatus to accomplish this step is not taught by the cited reference, the system described therein, would not infringe and therefore, the reference does not support a rejection based on anticipation. This would also apply to the rejected dependent claims.

The Issue of Obviousness

The above described deficiencies of the primary reference is not remedied by the proposed combination with the teaching of the reference Taketsugu. Taketsugu teaches a data transmission method, wherein no serial numbers are transmitted at all (see abstract), but the data packet numbers are kept up with both a transmitter's counter and a receiver's counter. Thus, Taketsugu does not teach a skilled man to send data packet numbers along

with the data packets in certain occasions, i.e. only when a certain process like discard of data packet or handover takes place.

Similarly the deficiencies of the primary reference are not remedied by combination with the teaching of Widegren et al. This reference only discloses a basic structure of an UMTS system, but does not teach how data packet numbering should be arranged.

Applicant submits that the modification of the teachings of 3GPP'323, Taketsugu or Widegren, in order to obtain the invention, as described in the amended claims submitted herein, would not have been obvious to one skilled in the art.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$250.00 is enclosed for additional claim fees. The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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